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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,235	03/22/2004	Kazunori Bannai	247067US2	9049
22850	7590	06/28/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			REIS, TRAVIS M	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/805,235	Applicant(s) BANNAI ET AL. 	
	Examiner Travis M. Reis	Art Unit 2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>20040712</u> .  | 6) <input type="checkbox"/> Other: ____                                     |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Tagawa et al. (U.S. Patent 6038423).

Tagawa et al. discloses an image forming apparatus (1) and method of using comprising an image carrier (2) configured to carry toner images and pattern toner images, an endless transfer belt (7) configured to directly or indirectly receive the toner images and the pattern toner images from the image carrier; a drive roller (8) configured to drive the transfer belt; a position shift detector (22) configured to detect positions of pattern toner images (Fig. 1) formed in the image carrier to obtain position shift data used to calculate the first moving average values of  $n$  times  $N$  of the position shift data and a second moving average values of  $n$  times  $M$  of the first moving average values where  $N$  &  $n$  are an integers greater or equal to 1, a ratio between a circumferential length of the image carrier and a circumferential length of a circle having a diameter equal to a length in which an average thickness of the transfer belt is added to a diameter of the driver roller set to  $N:M$  (col. 8 lines 55-67; col. 9 lines 1-30), pattern toner images are formed on the image carrier at an interval of  $1/n$  time  $N$  of the circumferential length of the image carrier, and the pattern toner images are transferred from the image carrier onto the transfer belt over one cycle length of the transfer belt; a control circuit (13) configured to calculate the first and second moving average values of the position shift data by a center average method before rotation of the transfer belt and when a number of images formed with the image forming apparatus exceeds a

predetermined number; driven rollers (Fig. 1), the drive roller & said driven rollers surrounded by the transfer belt; a control device configured to control a rotational speed of the drive roller based on the calculated first and second values to correct a speed variation caused by an uneven thickness of the transfer belt in a circumferential direction of the transfer belt(S53) (Fig. 4).

### ***Conclusion***

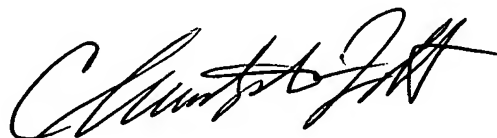
3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lehman discloses a color corrected printing system (U.S. Patent 3902801). Sasaki et al. discloses a color image forming apparatus having integral multiple length belt (U.S. Patent 5515145). Isobe et al. discloses a color printer correcting positional errors in respective printing mechanisms (U.S. Patent 5579092). Komiya et al. discloses an image forming apparatus which corrects for misregistration (U.S. Patent 55778280). Noguchi discloses an image formation system and color misregistration correction system (U.S. Patent 5852461). Rombult et al. discloses a registration detection apparatus for imaging systems (U.S. Patent 5889547). Nishizawa et al. discloses a color image forming apparatus having correction of a color image offset (U.S. Patent 6002413). Houki et al. discloses a positional error correction for a color image forming apparatus (U.S. Patent 6118463). Kawano discloses an image forming device with misregistration correction achieved by photo-conductor speed controlled variation of latent image tilt (U.S. Patent 6154628). Linssen discloses a method for automatically correcting image registration (U.S. Patent 6185402). Nakayasu et al. discloses an image formation apparatus (U.S. Patent 6198896). Yamanaka et al. discloses a method and apparatus for image forming capable of effectively performing color displacement detection (U.S. Patent 6829465). Tomita et al. discloses an image forming device and color misregistration correction method (U.S. Patent App. Pub. 20050047834).

Art Unit: 2859

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis M. Reis whose telephone number is (571) 272-2249. The examiner can normally be reached on 8--5 M--F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for all communications.

Travis M Reis  
Examiner  
Art Unit 2859



Diego Gutierrez  
Supervisory Patent Examiner  
Technology Center 2800

tmr  
June 23, 2005

**CHRISTOPHER W. FULTON**  
**PRIMARY EXAMINER**